REMARKS

By way of summary, Claims 1 and 3–27 are now pending in this application. In the July 6, 2004 Office Action, the Examiner rejected Claims 1–23. In particular, the Examiner rejected Claims 1–23 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. In addition, the Examiner rejected Claims 1–23 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Furthermore, the Examiner rejected Claims 1, 17 and 22 under 35 U.S.C. § 102(b) as being anticipated by a reference entitled "Protein Structure Prediction Using Hybrid AI Methods" by Guan et al. (the "Guan reference").

As of the present Amendment, Applicants have cancelled Claim 2 without prejudice or disclaimer. Applicants have amended Claims 1 and 3–23 and have added Claims 24–27. Therefore, Applicants respectfully request allowance of Claims 1 and 3–27.

REJECTIONS OF CLAIMS 1–23 UNDER 35 U.S.C. § 112

The Examiner rejected Claims 1–23 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. In particular, with reference to independent Claims 1 and 22, the Examiner bases the rejection on the limitation regarding ". . . using a machine learning method to predict an outcome by *applying* subsets of data which *correspond* to individual sets of outcomes . . ." With reference to Claim 17, the Examiner bases the rejection on the limitation regarding ". . . predicting results based upon *evaluating determined rule sets* and *modifying machine learning methods.*" The Examiner further states that the dependent Claims 2–16, 18–21 and 23 do not set forth any active or positive steps delimiting how the claimed invention is practiced.

Applicants respectfully disagree with the Examiner's rejection and characterization of the cited limitations. In addition, in view of the present amendments to Claims 1 and 3–23, Applicants respectfully submit that Claims 1 and 3–23 are not indefinite. In particular, Applicants have further clarified Claims 1 and 22 to recite a computer-executable method wherein selected subsets of training data corresponding

to particular outcomes are used by computer executable machine learners to develop particular rules. In addition, amended Claim 17 recites a computer-executable method that includes the act of "modifying the machine learning methods executed by software-based computer-executable machine learners."

Therefore, Applicants respectfully request the Examiner to withdraw the rejections of Claims 1 and 3–23 with respect to 35 U.S.C. § 112, second paragraph.

REJECTIONS OF CLAIMS 1–23 UNDER 35 U.S.C. § 101

The Examiner rejected Claims 1–23 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Examiner stated that the claims focus on ideas that are disclosed abstractly from any particular practical application.

Applicants respectfully disagree with the Examiner's rejection and characterization of the cited limitations. However, in an effort to clarify the claims, Applicants have amended the claims to recite <u>computer-executable</u> methods that include the use of <u>software-based, computer-executable machine learners</u>. In addition, in one embodiment, the computer-executable methods comprise the act of developing from multiple subsets of training data one or more sets of <u>computer-executable </u>rules <u>usable </u>to predict outcomes corresponding to medical costs.

Therefore, Applicants respectfully request the Examiner to withdraw the rejections of Claims 1 and 3–23 with respect to 35 U.S.C. § 101.

REJECTIONS OF CLAIMS 1, 17 AND 22 UNDER 35 U.S.C. § 102(b)

The Examiner rejected Claims 1, 17 and 22 under 35 U.S.C. § 102(b) as being anticipated by the Guan reference. For at least the reasons set forth below, Applicants respectfully disagree.

Claim 1

Focusing in particular on amended independent Claim 1, one embodiment of the Applicants' invention includes a computer-executable method comprising, among other things, the acts of (1) defining first and second outcomes associated with particular ranges of medical costs, and (2) selecting at least three subsets of training data, wherein one subset corresponds to the first outcome (i.e., higher medical cost) and two subsets correspond to the second outcome (i.e., lower medical cost), and (3)

developing from the subsets of training data computer-executable rules usable to predict the first or second outcome.

The Guan reference does not teach a computer-executable method that includes the acts of defining outcomes associated with a range of medical costs and does not teach developing one or more sets of computer-executable rules usable to predict such outcomes. Rather, Guan appears to disclose predicting three-dimensional protein structures from their amino acid sequences. Furthermore, unlike what is recited in amended Claim 1, Guan appears to use related data (i.e., known protein sequences and close matches) to predict the protein structures (the outcome) and not to develop rules to predict an outcome (see section 2, page 472, column 1, paragraph 5 through column 2, paragraph 2).

Because the reference cited by the Examiner does not disclose, teach, or suggest a computer-executable method that includes: (1) the act of defining outcomes associated with a range of medical costs, and (2) the act of developing one or more sets of computer-executable rules usable to predict such outcomes, Applicants assert that amended Claim 1 is not anticipated by the Guan reference. Therefore, Applicants respectfully submit that amended Claim 1 is patentably distinguished over the cited reference and respectfully requests allowance of amended Claim 1.

Claims 17 and 22

Independent Claims 17 and 22 are believed to be patentable for reasons similar to those set forth with respect to the patentability of independent Claim 1 and for the different aspects recited therein.

DEPENDENT CLAIMS 3–16, 18–21 AND 23

Dependent Claims 3–16, 18–21 and 23 were not rejected based on the prior art. Therefore, in view of the present amendments and the corresponding remarks recited above, Applicants respectfully request allowance of Claims 3–16, 18–21 and 23.

NEW DEPENDENT CLAIMS 24–27

As of this Amendment, Applicants have added new dependent Claims 24–27. Claim 24 depends from independent Claim 22 and is believed to be patentable for the additional features recited therein. Claims 25–27 depend from independent Claim 1 and are believed to be patentable for the additional features recited therein.

REQUEST FOR TELEPHONE INTERVIEW

Pursuant to M.P.E.P. § 713.01, in order to expedite prosecution of this application, Applicants' undersigned attorney of record hereby formally requests a telephone interview with the Examiner as soon as the Examiner has considered the effect of the arguments presented above. Applicants' attorney can be reached at (949) 721-2998 or at the number listed below.

CONCLUSION

In view of the foregoing, the present application is believed to be in condition for allowance, and such allowance is respectfully requested. If further issues remain to be resolved, the Examiner is cordially invited to contact the undersigned such that any remaining issues may be promptly resolved.
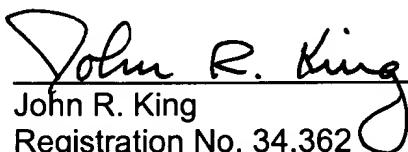
Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: ___11/8/04___   By: _____
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